June 20, 2003

Dear Sir/Madam:

The American Phytopathological Society (APS), founded in 1909, is the premiere educational, professional and scientific society dedicated to the promotion of plant health and plant disease management for the common good. The Society, representing the interest of five thousand scientists whose pivotal research advances in the understanding of the science of plant pathology and its application to plant health, respectfully submits its comments regarding the proposed Pesticides; Emergency Exemption Process Revisions Pilot (Federal Register, April 24, 2003 (Vol. 68, No. 79, pgs 20145-20155; Docket ID OPP-2002-0231)

The APS supports the belief of EPA that "granting emergency exemptions on the basis of resistance management is a proactive approach for addressing the development of resistance in its early stages, thereby preventing significant economic losses before they occur [FR 68 (79) pg. 20154]. Paramount to being proactive is timeliness once a decrease in susceptibility to a pesticide is noted. Hence, the EPA must include within the goal of being proactive in addressing issues in resistance mangement the commitment to making timely decisions on the best data available germane to the potential economic and societal benefit to both consumers and producers.

The EPA raises six points for consideration and comment in regards to granting emergency exemptions on the basis of resistance management. Our replies follow each question:

i. There is likely to be some delay in confirming resistance in the field once it is suspected. Given this circumstance, what level of documentation would be appropriate through laboratory, greenhouse, or field studies either in county, State, region, inside or outside the U.S.?

While setting a definitive standard for what constitutes a loss of sensitivity to a pesticide is ideal, the level of documentation warranted must be evaluated on a case-by-case basis depending on the perceived impact to both the consumer and producer. Certainly, data collected by representatives of organizations with expertise in plant health from both inside and outside the U.S. must be considered, and observations verified by a means the EPA believes is valid.

ii. How should noted resistance in related pest species be used to aid a request?

Resistance noted in a related pest species is important and can be useful to EPA in pursuit of the goal of being proactive in resistance management. However, to fully utilize this information the EPA must support, through grant or contract, appropriate investigations to determine if such resistance is or will develop in the target pest under the same or similar circumstances leading to resistance in a related pest.

iii. How many years of field data and how many geographic locations would one need to establish a reasonable case for pest resistance?

The more data available from investigation, and the longer the time period from which data is collected, the greater will be the accuracy in decision making. However, the utility of the decision made will likely be compromised by the length of the decision making process. Thus, the "number of years" is very dependent on the nature of the pest. When the pest produces propagative structures that can be dispersed over long distances and remain viable, or the pest has a wide host range that permits rapid geographic spread or temporal longevity, the situation may call for a decision made in months rather than in years.

iv. Comments are requested on the documentation of cross-resistance potential.

The documentation of cross-resistance potential is certainly desirable, but not possible to determine until resistance has developed. Hence, this should not be considered a requirement in developing a response to manage disease loss due to development of pest resistance. When there is more than one candidate chemical for an emergency exemption to facilitate pest resistance management, all should be considered. This will lessen the possibility of cross-resistance developing.

v. Should emergency exemptions for resistance management be limited to requests for chemicals in a different class, or with a different mode of action, than the chemical to which resistance is developing?

Cross resistance is not an absolute between chemicals in the same class or with the same mode of action. Chemicals in a different class or with a different mode of action than the chemical to which resistance is developing will most likely be effective in managing the disease agent for which resistance has developed to the pesticide of choice. However, as indicated in the response to query iv., all candidates should be given full consideration for an emergency exemption to permit a timely implementation of a new disease management practice to mitigate disease.

vi. What evidence should be provided to demonstrate the likely effectiveness of proposed management strategies to manage resistance?

This question is analogous to query iv., in that the EPA is seeking a prediction rather than an outcome based on experimentation. In developing a proposed management strategy, the findings from the management of the same or similar pathogens, on the same or similar hosts is what will be available in developing a new strategy. Hence, the effectiveness of a proposed strategy will not be certain. The EPA will have to evaluate the environmental impact of approving the proposed management strategy in light of the economic and societal impact of leaving a disease unchecked, and the willingness of producers to employ a strategy that is unproven. As with query ii, EPA must support, through grant or contract, in a timely manner appropriate investigations to determine if the proposed management strategies will manage resistance.

The APS appreciates the opportunity to provide comment on this issue and applauds the EPA for seeking to be proactive in addressing pesticide resistance management. Providing producers timely options to produce healthy crops in a economically viable manner is for the benefit of all of society.

Sincerely,

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